

LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



8.0 x 8.0 x 4.0mm

ASPI-0840



RoHS/RoHS II Compliant

FEATURES:

- Small size and low profile: 4.0mm
- Small DCR and high rated current
- High reliability to mechanical stress
- Magnetically shielded by magnetic powder molding
- Suitable for RoHS reflow profile

APPLICATIONS:

- Mobile phones
- MP3 & 4 and other portable communication equipment
- Digital cameras.

ELECTRICAL SPECIFICATIONS:

Abracon P/N:	ASPI-0840 Series
Operating Temperature	-40°C to +85°C
Storage Temperature & Humidity:	-10°C to +40°C, 30% to 70% RH

Part Number ASPI-0840- Inductance Code	Inductance	Inductance Tolerance	DCR	DCR Tolerance	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	%	A	A
Symbol	L	M, N	DCR		Isat	Irms
ASPI-0840-R50	0.5	N	6	±30%	11.00	8.00
ASPI-0840-R90	0.9	N	7		10.00	7.90
ASPI-0840-1R4	1.4	N	9		8.60	7.50
ASPI-0840-2R0	2.0	N	12		7.00	6.80
ASPI-0840-2R2	2.2	N	12		6.80	6.40
ASPI-0840-3R3	3.3	N	15		6.40	5.80
ASPI-0840-3R6	3.6	N	15		6.00	5.40
ASPI-0840-3R9	3.9	N	15		5.60	5.00
ASPI-0840-4R7	4.7	N	20		5.40	4.50
ASPI-0840-6R8	6.8	N	25		4.40	4.00
ASPI-0840-8R6	8.6	N	30		4.20	3.50
ASPI-0840-100	10	M	31		3.80	3.30
ASPI-0840-150	15	M	50		3.00	2.70
ASPI-0840-220	22	M	66		2.40	2.20
ASPI-0840-330	33	M	110		2.00	2.00
ASPI-0840-470	47	M	150		1.60	1.60
ASPI-0840-680	68	M	200		1.30	1.30
ASPI-0840-101	100	M	310		1.00	1.00
ASPI-0840-121	120	M	350		0.95	0.90
ASPI-0840-221	220	M	630		0.75	0.75

Test Conditions

1. Isat : Based on inductance change ($\Delta L/L_0 : \leq -30\%$)
2. Irms : Based on temperature rise ($\Delta T : 40^\circ\text{C TYP.}$)
3. Test Freq: 100KHz, 1Vrms

OPTIONS AND PART IDENTIFICATION

ASPI-0840- -

Inductance Code

Please refer to the
Electrical Spec Table

Tolerance

N: ±30%*
M: ±20%*

Packaging

T: Tape and Reel (1kpcs / reel)

*N for L = 0.5 ~ 8.6μH

*M for L = 10 ~ 220μH



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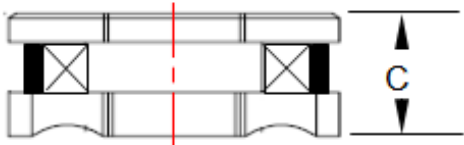
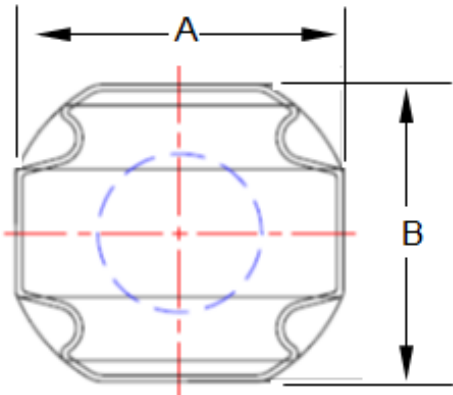
8.0 x 8.0 x 4.0mm

ASPI-0840



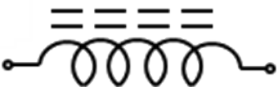
RoHS/RoHS II Compliant

OUTLINE DRAWING:



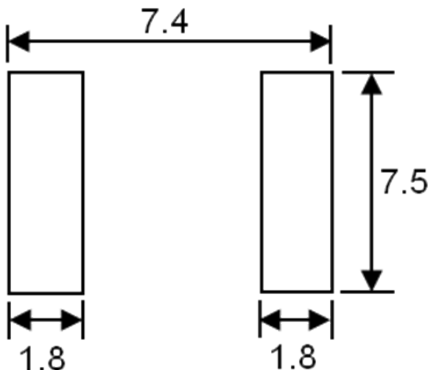
A	B	C
8.0±0.2	8.0±0.2	4.0±0.3

Circuit Schematic



No Polarity

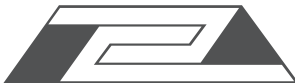
Recommended Land Pattern



Materials

No	Part Name	Material
1	Ferrite core	Ni-Zn Ferrite
2	Terminals	Ag/Ni/Sn
3	Coil	Cu/P180 Grd 1
4	Adhesive	Silicon Base Resin
	Magnetic Powder	Ni-Zn Ferrite

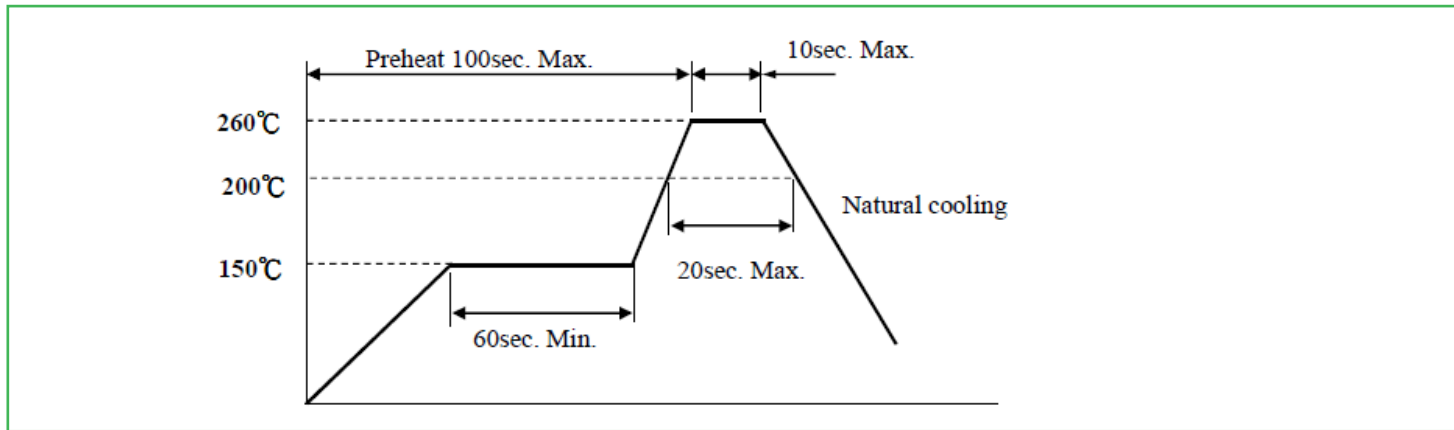
Dimension: mm



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T: 1,000pcs / reel

The technical drawing includes three views of a component:

- Top View:** Shows a rectangular body with a central circular feature. Dimensions include a width of 4.00, a central hole diameter of 1.5 Dia. (+0.1/-0.0), and a distance of 2.00 ± 0.05 from the edge to the center. A small square feature is labeled 'XXX'.
- Side View:** Shows the profile of the component with a total height of 16.00 (W) and a thickness of 0.35 (T). It also shows a distance of 5.50 from the bottom edge to the center of the main body.
- Cross-sectional View:** Shows the internal structure with a central hole of diameter C and a surrounding layer of thickness B. The total width is A.

Ao	8.50
Bo	8.50
Ko	4.20
W	16.00
P	12.00
T	0.35

A	330
B	21.0±0.8
C	13.5±0.5
G	16.8
N	99.5
T	21

Dimension: mm

Ao	8.50
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Dimension: mm

ABRACON IS
ISO9001:2008
CERTIFIED



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